CHAPTER 4

STANDARDS AND GUIDELINES

4.1. INTRODUCTION

Previous chapters of the Land and Resource Management Plan discuss the overall direction for managing the Midewin National Tallgrass Prairie. This chapter lists the Standards and Guidelines that would be followed as projects are proposed and implemented. These standards and guidelines are for the protection or management of the different resources on Midewin. Standards and guidelines are designed so that all activities are integrated to meet land allocation objectives.

This Chapter is divided into three sections. The first section lists Prairie-wide Standards and Guidelines that apply to the entire Midewin National Tallgrass Prairie. The second section lists standards and guidelines that apply only to Management Area 1, where Prairie ecosystem restoration is emphasized. The third section lists standards and guidelines that apply only to Management Area 2, where administrative and developed sites are emphasized

Standards are actions that must be followed or are required limits to activities in order to achieve goals and objectives. The Plan must be amended before any deviations from standards can occur.

Guidelines are advisable actions that may be followed to achieve goals and objectives, but are optional. Deviations from guidelines must be analyzed during project level analysis and documented in a project decision, but do not require a Plan amendment.

4.2. PRAIRIE WIDE STANDARDS AND GUIDELINES

The following Standards and Guidelines apply to all National Forest System lands within Midewin National Tallgrass Prairie.

4.2.1. ECOLOGICAL SUSTAINABILITY

4.2.1.1. ECOSYSTEM RESTORATION PRIORITIES

Guidelines

1. Select and prioritize ecosystem restoration project areas based on:

    a) Potential for long-term enhancement of Regional Forester Sensitive Species habitat. Give high priority to short-term opportunities to rapidly expand unfragmented grassland bird habitat at relatively low cost. Other high priorities include short-term opportunities to enhance or expand existing native plant populations at relatively low cost.

    b) Consistency with long-term watershed restoration priorities determined by watershed assessments. Give highest short-term priority to sites with water pollution hazards, including sites of severe erosion. Other high priority short-term opportunities include where rapid improvements in watershed conditions can be made at relatively low cost.

    c) Compatibility with long-term and short-term management of surrounding lands and availability of management tools to maintain desired conditions.

    d) Conversion of cool season grassland habitat (6,270 acres prescribed), to restored native prairie will proceed only after it has been determined that management of restored native grasses and forbs can provide suitable grassland bird habitat.

2. Select and prioritize lands to be restored to native vegetation based on:

    a) Proximity to adjacent areas with native vegetation;

    b) Presence of a matrix of native vegetation on the site; and

    c) Potential for educational value and visibility to the general public,

4.2.1.2 THREATENED and ENDANGERED SPECIES

Standards

1. Meet the requirements of the Endangered Species Act, as amended.

2. Support monitoring, research, and inventory work for threatened, endangered, and proposed species. Coordinate with US Fish and Wildlife Service and appropriate state agencies using "challenge cost share" interagency agreements, and other instruments.

3. Conserve habitats for species tending toward federal listing to preclude the need for listing and additional protection under the Endangered Species Act.

4.2.1.3 HABITAT RESTORATION

4.2.1.3.1 Provenance and Seed Production

Standards

1. Only seed collected from appropriate and local seed sources for restoration of native vegetation shall be used either directly on lands selected for restoration, or to establish seed production beds and fields on-site.

Guidelines

1. Wild, natural populations of native plants are preferred as seed sources in the following order:

    a) From existing remnants on Midewin and the adjacent Prairie Parklands, including portions of Will, Grundy, and Kankakee counties.

    b) From the northern Grand Prairie Natural Division of both Illinois and Indiana, and the southern Northeastern Morainal Division of Illinois.

    c) Elsewhere in the Grand Prairie and Northeastern Morainal Divisions in Illinois and Indiana.

    d) Lowest preference is given to sources beyond these limits in the northwestern quarter of Indiana, the northern two-thirds of Illinois, and the southeastern quarter of Wisconsin. Sources from these regions are limited to wind-pollinated species, such as oaks, grasses, sedges, and rushes.

e) For a few species, it may be necessary to go beyond the areas listed above to gain suitable genetic diversity to establish a population at Midewin. In such cases, sources may be selected based on potential genetic diversity and similarity of conditions (soils, climate, associated species) to those at Midewin.

2. Seed and plant materials produced from Midewin seed production beds and fields will be used primarily for restoration projects, and not to expand seed production. Extra seed and plant materials produced at Midewin may be used on other Prairie Parkland projects through partnerships.

3. Seed production should be managed to produce plant materials that are of appropriate species and sufficient purity, and that are likely to persist for restoration projects.

4. Seed harvest and production should be managed to minimize or avoid adverse impacts on soils, water quality, air quality, or native wildlife and plants.

4.2.1.3.2. Plant Collecting

Guidelines

1. Discourage plant collecting and require collection permits to ensure plant collecting does not jeopardize the continued vigor or existence of any native plant population or associated plant or animal communities.

4.2.1.3.3. Restoration Procedures for Native Vegetation

Guidelines

1. Prescribe restoration of native vegetation based on site potential, soil types, historic vegetation types and conditions, and extant remnants on similar sites. (See Appendix A Description of Habitat Types).

2. Follow suggested species lists (Appendix B) for seed and planting mixes, derived from existing examples of the desired habitats.

4.2.1.3.4. Riparian Restoration

Guidelines

1. Focus aquatic resource management to improve conditions for native species that are rare in the Kankakee and Des Plaines River basins, have declining regional populations, or require habitat in high quality streams.

2. Design wetland restoration projects based upon integrated analyses of watershed conditions, including knowledge of native, existing, future, and

desired hydrological patterns. Prefer restoration to native conditions but allow adaptation to modified watershed conditions.

3. Create or retain constructed (not natural) wetlands where restoration to native conditions is not feasible, where landscape features favor the formation of wetlands, and where the water budget for the wetland will remain intact after modification of surrounding connected areas.

4. Manage for a distribution of marshes of sizes and at locations reflecting the pattern and capacity of the natural landscape. Appropriate locations include existing depressions, oxbows, channel remnants, or ditches where the water budget allows.

5. Prefer designs for wetlands and wetland structures (e.g., impoundments, outlets) that require minimal management and maintenance. Modify or eliminate existing artificial impoundments as necessary to ensure safety, improve ecological value and condition, and improve water resource functions. Allow use of channel or wetland structures or technologies, if necessary, to prevent invasion of undesirable species.

6. Prefer wetland restoration projects where there is no foreseeable cause for future alteration of the site or its contributing drainage area. Restore contributing areas first, when feasible and critical for the success of downstream restoration.

7. Prefer biodegradable materials for stablilization or temporary controls in wetland and channel construction projects. Prefer channel restoration with natural channel design methods, native bank and substrate material sizes and native vegetation.

4.2.1.3.5. Noxious Weeds and Invasive Species

Guidelines

1. Prevent new or additional infestations of noxious weeds and invasive plant species. Preventative measures may include, but are not limited to the following:
    a) Specify, where needed, that project materials, including seed, mulch, soil, and gravel be free of seeds or other propagules of noxious weeds and invasive species.
    b) Require, where needed, that equipment likely to be transporting seed or propagules of noxious weeds and invasive species be washed or cleaned before use on Midewin.
    c) If necessary, restrict livestock or horses, if determined to be a source of noxious weeds or invasive species.

2. Set priorities for controlling noxious weeds and invasive plants based on the following factors:

a) Threats to resources.
b) Size of infestation.
c) Potential for further spread.
d) Effectiveness of available control methods.

3. Determine treatment methods based on the following factors:
    a) Life history of target species.
    b) Size of infestation (area).
    c) Level of infestation (density).
    d) Compatibility with habitat objectives.

4.2.1.4. SOIL AND WATERSHED RESOURCE MANAGEMENT

4.2.1.4.1. Planning and Restoration

Standards

1. Prior to any ground disturbing activities, assess the available information concerning potential exposure, and sample site conditions if necessary.

2. Prior to any ground disturbing activities determine whether the condition of the land requires any limitation of expected human activities.

3. Management activities will not impair the ability of streams or marshes to support desired aquatic life.

4. Wetland restoration on Midewin will not negatively impact the drainage of adjacent or connected properties without the consent of affected stakeholders.

5. Consult with the Army on restoration projects that may affect hydrological patterns on lands under remediation.

4.2.1.4.2. Riparian Management

Guidelines

1. Recognize critical riparian areas and their unique needs and opportunities for protection and restoration. The critical areas correspond approximately with the 100-year floodplain and may include depressions, intermittent waterways, or other wetlands. The critical areas strongly control streamflow, water quality, sediment and erosion, connectivity of habitat, and landscape diversity.

2. Manage riparian vegetation toward native species (see “Restoration Procedures for Native Vegetation”). Manage woody vegetation along fish-bearing streams to provide shade, cover, coarse organic matter, and large woody debris to the aquatic community. Manage woody riparian vegetation to sustain beaver activity where desirable.

3. Allow grazing in riparian areas to manage vegetation or achieve habitat objectives. Exclude livestock and horses from accessing perennial fish-bearing reaches. Prescribe the timing and intensity of riparian grazing to avoid erosion or long-term loss of soil quality.

4. Use prescribed fire in riparian areas as appropriate to improve vegetation and habitat and promote aesthetic values. Use riparian areas as buffers when burning large areas upslope.

5. Design and use fence-lines, firebreaks, trails, or roads in riparian areas to serve multiple purposes and integrated resource management.

6. Restrict access to streams and marshes to minimize cumulative effects to the aquatic resources. Allow entry into streams and marshes for educational, research and administrative purposes. Prohibit recreational wading, swimming, or boating in streams or wetlands, except when authorized by a special use permit or in designated areas.

7. Allow construction of non-disruptive observation sites in riparian areas.

8. Prefer non-riparian locations for roads and permanent trails. Minimize effective impermeable surfaces in riparian areas; prefer mowed turf trails or permeable surfaces.

4.2.1.4.3. Soil and Watershed Resource Protection

Guidelines

1. Locate and design land uses to prevent or minimize soil dislocation or compaction, rapid runoff, disruption of water movement and distribution, or loss of water quality.

2. Install and maintain effective drainage, retention and infiltration, and erosion control measures on roads, trails, and all other permanent developed surfaces for construction and operation stages.

3. Avoid traffic on soils when vehicle weight and soil moisture result in the formation of visible ruts. Minimize the use of heavy machinery and vehicles in riparian areas.

4. Design roads and trails through the 100-year floodplain to maintain or improve floodplain functions. Design channel crossings to maintain stable native substrate, vegetation, and channel configurations.

5. When restoring fill to excavated sites, achieve the best possible match of fill material to original soils based on texture, hydrological characteristics, parent material, and native vegetation. Rehabilitate disturbed soils to the degree that is practical with available technology and materials.

6. Consult with the USDA Natural Resource Conservation Service to assist in planning for agricultural practices and use of conservation measures.

7. Refer to the “Model Soil Erosion and Sediment Control Ordinance”, “Model Stormwater Drainage and Detention Ordinance”, and “Model Floodplain Ordinance” (Northeastern Illinois Planning Commission) and the “Urban Manual” (Natural Resource Conservation Service, Illinois Environmental Protection Agency” to assist in planning, design, and implementation of protective measures for roads, trails, bridges or culverts, facilities, or other ground disturbing activities at Midewin.

4.2.2. RECREATION AND INTERPRETATION

4.2.2.1. General

Standards

1. Manage recreation resource activities and facilities in accordance with the established Recreation Opportunity Spectrum (ROS) guidelines for Midewin. Figure 4 illustrates the proposed ROS for Midewin. See Appendix D for ROS table and explanation.

2. Restrict equestrian and bicycle use to trails designated for those uses.

3. Recreational activities may be restricted, prohibited, or relocated based on monitoring results to protect human safety, natural resources and sensitive species, and facilities. Example: hunting may be restricted from certain areas when environmental education activities are scheduled.

4. Recreation facilities, programs, and services will comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG) and will be compatible with the Recreation Opportunity Spectrum.

Guidelines

1. Minimize use of hardened or impermeable surfaces, except where needed to meet user needs or to protect resources.

2. Design recreational facilities to blend with elements found in the natural landscape.

3. Recreational activities not identified in this plan will be considered on a case-by-case basis when proposed and be evaluated for potential impact on the environment, prairie restoration, and on other recreational activities.

4.2.2.2. Interpretive Services

Standard

1. On-site interpretive activities shall be consistent with the goals and objectives of Midewin.

Guidelines

1. Interpretive services programs should take an integrated approach to interpreting the natural and cultural history of the area, and the management and restoration of prairie resources. Information should emphasize integration of management activities designed to achieve the goals and objectives developed for specific areas.

2. Through cooperative partnerships with other agencies and organizations, coordinate and improve interpretive services.

4.2.2.3. Trails

Standards

1. Coordinate trail development with environmental cleanup and restoration activities. Do not open trails for public use within areas closed for Army security or for public safety reasons.

2. Trails shall be designed, constructed and maintained to the Forest Service Design, Construction, and Maintenance standards appropriate for the type and amount of use on soils and topography of the area of concern. Trails will be designed and constructed to protect the natural resources of the area and to adequately and safely accommodate the most demanding type of designated use. Trails will be designed and constructed to meet accessibility standards.

3. Locate trailheads to provide information and support facilities to recreational users. Trailheads shall be of sufficient size to serve the desired capacity of the area being served.

4. Design, construct and maintain trail bridges and crossing structures to the Forest Service Design, Construction, and Maintenance standards appropriate for the type and amount of use and for predicted maximum environmental conditions. Trail bridges will be designed and constructed to meet accessibility standards.

5. Integrate erosion control and stabilization measures for all trail projects.

Guidelines

1. Trails should be designed to meet Recreation Opportunity Spectrum guidelines and Scenic Integrity Objectives.

2. Primary trailheads should be provided near access points, and may include support services such as vehicular/trailer parking, restrooms, information boards, bike racks, hitching posts, and drinking water. Secondary trailheads may be located at intersections of multiple use facilities/trails or at intersections of non-motorized access points and could provide these support facilities, except vehicular parking.

3. Rest areas with a bench and shade may be provided at intervals along trails. The location and distance between rest areas should be based on site and resource conditions and trail type.

4. Plan for and develop trails for a variety of challenge levels, appropriate to the Recreation Opportunity Spectrum setting.

5. Programs and signs should promote compliance with rules and regulations, in addition to interpretive information.

6. Where possible, locate trail crossings at right angles to streams and at suitable bridge locations.

7. Utilize the following criteria for location and construction of trails:

    a) Gather trail use data from interim trails to assist in planning permanent trails (both hiking only and multiple use). Include appropriate data such as amount and type of trail use, conflicts encountered, resource damage, law enforcement issues, etc.

    b) Sustainability of existing transportation infrastructure for permanent trail use.

    c) Degree to which trails avoid impacts to Threatened, Endangered or Sensitive species.

d) Degree to which trails connect with adjacent public lands and trails.

e) Degree to which trails connect points of interest.

f) Degree to which trails follow natural topography for proper drainage and slopes.

g) Provide trails of various lengths, looping when possible or connecting to a logical destination to provide choices and accommodate different skill levels and time commitments.

h) If trail closure is anticipated, provide for alternate routes if possible.

4.2.2.4. Scenery Management

Guidelines

1. Resource management activities should not reduce scenic integrity levels below the prescribed objective for a given area, except in the case of specific resource rehabilitation projects to meet management area objectives. In this instance, integrate viewshed rehabilitation into site-specific project plans. See Figure 5 for the Scenery Management Map of Midewin.

2. Manage activities to be consistent with the proposed scenic integrity objectives. Prairie Lands are divided into three proposed scenic integrity levels:

    a) High Scenic Integrity – Appears unaltered. Valued landscape character appears intact. Deviations may be present, but are not evident because they so completely repeat the lines, forms, colors, textures and patterns, at the appropriate scale, of the characteristic landscape.
    b) Moderate Scenic Integrity – Appears slightly altered. Noticeable deviations to the valued landscape character should remain visually subordinate to the landscape being viewed.
    c) Low Scenic Integrity – Appears altered. Deviations from the valued landscape character may begin to dominate the landscape being viewed, but they should borrow valued attributes such as size, shape, edge effect, and pattern of natural openings, vegetative type changes, or architectural styles that may occur elsewhere. (See Figure 5 for the Scenery Management Map of Midewin).

3. Existing projects and areas not currently meeting scenic integrity objectives should be rehabilitated based on the following criteria:
    a) Relative importance of the area and amount of deviation from the scenic integrity objectives.

b) Length of time it will take restoration and natural processes to reduce the visual impacts.
c) Benefits to other resource management objectives to accomplish scenic integrity rehabilitation.

d) New roads and trails should be located along the periphery of large open areas to maximize the opportunities for scenic views from trails and recreation sites and to preserve the expansiveness of the prairie.

e) Roads and railroad grades to be obliterated should be re-graded to blend in with the surrounding topography. If re-grading is not feasible, round transition of cuts and fills to lessen visual impacts.

f) Where compatible with ecologic restoration goals, provide natural appearing screening adjacent to industrial facilities.

g) Where possible, conceal abrupt and visible edges in resource management practices (i.e., mowing, prescribed burns, fencing) from prominent viewing areas.

h) Promptly remove unnecessary, human-made effects, (e.g. agricultural equipment, hay bales, etc.)

i) Where possible, meet scenic integrity objectives of “High” within three years after completion of a project.

4.2.3. HERITAGE RESOURCES

4.2.3.1. Identification and Evaluation

Standards

1. Inventories shall meet current national guidance and professional standards (e.g., Secretary of the Interior Guidelines for Archeology and Historic Preservation, Forest inventory or property identification strategies agreed to by State Historic Preservation Office [SHPO], Tribal Historic Preservation Office [THPO], Tribes and other consulting party agreements).

2. Inventory and site/property data shall be current, accurate, and reside in the corporate, automated database and mapping system (Heritage INFRA/GIS). Areas requiring inventory or more intensive inventory shall be identified in accordance with the Archeological Resources Protection Act (ARPA).

3. All properties shall be evaluated against the National Register of Historic Places criteria of significance. (e.g., Secretary of the Interior Guidelines for

Archeology and Historic Preservation, evaluation criteria agreed to by SHPO, THPO, Tribes and other consulting party agreements).

4. Eligible heritage properties should be nominated to the National Register of Historic Places.

4.2.3.2. Protection and Monitoring

Standards

1. National Register eligible properties receive full National Historic Preservation Act consideration.

2. Prehistoric and historic artifacts, investigation field records, and historic archival data (photographs, maps, information sources) are maintained to national curatorial and archival standards (36 C.F.R. §79 “Curation of Federally Owned Collections”).

3. Human remains, funerary objects, sacred objects, or objects of cultural patrimony are administered in accordance with Native American Graves Protection and Repatriation Act (NAGPRA) requirements and Eastern and Southern Regions Treatment of Human Remains policy and attendant FSM direction.

4. National Register listed and other designated properties (including: World Heritage Sites, National Historic Landmarks, National Historic Trails or State Registered Sites on NF lands, cemeteries, traditional use areas, etc.) are monitored in accordance with the Prairie Plan, Heritage deferred maintenance protocols, Heritage preservation plans (HPPs), or site/property-specific plans and reports (e.g., resource condition assessments, law enforcement plans [ARPA]), and other agreements with SHPO, THPO, Tribes and other consulting parties.

5. Human-caused damage, destruction, or removal of Heritage structures and properties receive full consideration under ARPA.

4.2.3.3. Preservation

Standards

1. Structural and non-structural stabilization, rehabilitation, restoration, and maintenance is conducted:
    a) in accordance with Unit-level HPPs and Prairie Plan;
    b) in consultation with SHPO, THPO, Tribes, ACHP, and other consulting parties; and,
    c) in accordance with the Secretary of Interior’s Standards and Guidelines for Historic Preservation including Technical Bulletins (NPS). [Heritage Deferred Maintenance schedules will be followed to ensure all assets are considered].

4.2.3.4. Promote Heritage Values

Guidelines

1. A sense of public stewardship and a greater understanding of the purposes and benefits of heritage resources will be fostered by integrating the delivery of heritage resource messages with Prairie-wide environmental education, public outreach, and interpretation efforts.

4.2.4. LANDS AND SPECIAL USES

4.2.4.1. Special Use Administration

Standards

1. Private uses of National Forest System lands will not be granted where such uses can reasonably be accommodated on other lands.

2. New special use requests will be reviewed for compatibility with the Land and Resource Management Plan, Illinois Land Conservation Act, and environmental values, economic feasibility, and social and economic benefits.

3. Upon renewal or transfer of a permit, terminate or bring into conformance existing uses that are not compatible with the Prairie Plan.

Guidelines

1. To the extent allowed by law, regulation, and policy, permit applicants should conduct environmental analyses and supporting activities (such as cultural resource surveys) and submit them to the responsible official for consideration in Forest Service decisions.

2. Evaluate recreation special use proposals on a case-by-case basis.

3. Identify opportunities for commercial recreation use, services, and developments compatible with the goals and objectives for Midewin.

4.2.4.2. For New Utilities under Special Uses:

Guidelines

1. Where technology exists, bury new utility lines within existing rights-of-way. If overhead utilities are necessary, they should be located out of view from viewshed of Level 1 or 2 travel ways or use areas.

2. New utilities that cannot be buried (e.g. radio and cellular transmission towers, high voltage transmission lines and towers etc) should not be placed on Prairie lands, unless all other ownership locations are determined unfeasible.

3. When technically feasible, permitted communication towers should serve multiple purposes (e.g. cellular phone, radio, etc.).

4. Avoid construction of additional communication towers.

5. Avoid tower installation on Prairie lands in the viewshed of a Concern Level 1 or 2 travel way or use area. Use the shortest possible tower in a given location. Consider a series of shorter, strategically placed, non-lighted towers rather than constructing a tall, lighted tower.

6. Reduce visual impact of current and future obstruction lighting.

7. Use appropriate mitigation measures to reduce visual impacts.

4.2.4.3. Right-of-Way Grants

Standards

1. Grant reasonable access across National Forest System land to allow inholders and other landowner's use of their land without unnecessarily reducing Forest Service management options or damaging National Forest System lands or resources. However, per Illinois Land Conservation Act, no new through roads are allowed.

4.2.4.4. Land Survey and Landline Location and Maintenance

Guidelines

1. When maintaining existing or locating new property boundary lines and corners, coordinate with previous owners for original boundary line survey. Encourage cooperative work with adjacent landowners to mark and post original National Tallgrass Prairie/State boundaries to Forest Service standards. The Forest Service will maintain these boundary lines and corners after the original survey. These boundaries should not be surveyed marked or posted, until after conveyance of the land.

4.2.4.5. Acquisition and Conveyance of Lands

Standards

1. Any parcels transferred from the Department of Defense or acquired through donation, exchange or acquisition will be managed in accordance with this Prairie Plan without need for a plan amendment.

Guidelines

1. Prioritize opportunities to acquire lands based on:

    a) Lands with important or unique resources, such as threatened or endangered species habitat, Regional Forester Sensitive Species habitat, important historical wetlands, flood plains, streams and

associated riparian ecosystems, heritage resources or traditional cultural properties, outstanding scenic values, or critical ecosystems when these resources are threatened by change of use, or when management may be enhanced by public ownership.
b) Lands with important outdoor recreation value.
c) Lands needed to protect other resource values.
d) Acquisition would reduce Forest Service administrative costs and improve efficiency of management.

2. Generally, acquire lands by donation or purchase. Only purchase lands on a willing seller/willing buyer basis, when exchange or donation is not feasible and when funds are available for purchase.

3. Priorities of lands for exchange/conveyance are generally those lands that do not meet the conditions specified in the priorities for acquisition. In addition, avoid land adjustments that could result in a trend toward federal listing; or could compromise a population's likelihood of persistence for species of concern. Sensitive species habitat can be conveyed if conveyance would not result in a trend toward federal listing or adversely impact the population's likelihood of persistence, or if mitigation and compensation values gained in acquired lands are considered, and if effects could be mitigated.

4.2.5. FACILITIES AND TRANSPORTATION

4.2.5.1. FACILITIES

Standards

1. New facilities will comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG), and the Built Environment Image Guide.

Guidelines

1. New facilities should be designed to blend with elements found in the natural landscape, and in accordance with Recreation Opportunity Spectrum guidelines, Scenic Integrity Objectives, and Midewin architectural themes.

2. Integrate the National Built Environment Images Guidelines and other guidelines appropriate for Midewin for all new structures and facilities.

3. Landscaping around new facilities should use appropriate native vegetation or non-aggressive vegetation not native to the area that is compatible with the site and adjacent restoration areas, as well as

Recreation Opportunity Spectrum guidelines and Scenic Integrity Objectives.

4.2.5.2. FORMER JOLIET ARSENAL INFRASTRUCTURE

Guidelines

1. Evaluate for disposal facilities and structures that are safety hazards and are not needed to achieve land and resource management objectives.

2. Re-use, recycle or sell ballast (rocks), asphalt, gravel and other non hazardous materials not needed from roads, railroad beds and other structures formerly built by the Army and no longer needed.

3. Remove and properly dispose of former Army facilities, roads, bridges, or other structures deemed unsafe and no longer needed for the long-term.

4. When removing infrastructure and restoring sites, give priority to facilities and structures visible from concern level 1 and 2 roads, trails, and facilities.

5. Use existing disturbed sites such as parking lots for staging areas for facility and structural removal projects.

6. Restore sites to support other resource management goals.

7. Reserve from restoration or public access, any land where residual hazardous materials are present in excess of Revised DOD Record of Decision standards, until such conditions can be mediated.

4.2.5.3. TRANSPORTATION

Standards

1. Prohibit development of new through roads per Illinois Land Conservation Act.

Guidelines

1. Limit or restrict travel, as needed, to accomplish the following:
    a) Provide for public health and safety.
    b) Protect threatened, endangered, and sensitive species and their habitat.
    c) Protect Prairie resources, such as wildlife, soil, vegetation, water.
    d) Reduce user conflicts.
    e) Protect the road investment
    f) Comply with Army and other agreements requiring road use be controlled.

g) Coordinate with local and state agencies for recreational trail and hunting opportunities and access needs.

2. Design and construct roads to a standard appropriate for their intended use, considering safety, cost, and resource impacts, especially water quality and aesthetics.

3. Roads no longer needed for access or Prairie management should be decommissioned, and the land returned to desired resource management.

4. Subject to available funding, maintain, repair or improve roads to protect the road investment and other resources. Prioritize road maintenance activities based on user safety, resource protection needs, administrative needs, user comfort, and traffic service level.

5. When decommissioning roads, consider opportunities for use as bicycle or equestrian trails or other appropriate travel routes.

4.2.6. FIRE MANAGEMENT

4.2.6.1. Fire Suppression

Standards

1. Annually update and implement a Fire Management Plan for Midewin National Tallgrass Prairie.

4.2.6.2. Prescribed Fire

Guidelines

1. Use prescribed fire, as appropriate, for site preparation, wildlife habitat improvement, or fuel treatment.

2. Integrate planning, execution, monitoring and evaluation of prescribed fire with other resources, for native vegetation management, site preparation, and wildlife habitat improvement.

3. Delineate fire management units and maintain records of prescribed fire prescriptions in GIS format.

4. Prepare a smoke management plan prior to execution of prescribed fires and ensure compliance with the Clean Air Act.

5. Manage prescribed fire on all watershed areas to prevent delivery of overland flow, rapid runoff, or sediment to streams or wetlands.

6. Prescribed fires should not result in “baking” of soils, formation of hydrophobic areas, erosion, or other loss of soil quality.

7. Consider aesthetics and integrate Scenic Integrity Objectives into planning and execution of prescribed fire.

4.2.7. AIR QUALITY AND SMOKE MANAGEMENT

Standards

1. All land management activities must comply with applicable federal, state, and local air quality standards and regulations including: Federal Clean Air Act, as amended, 1990 (42 U.S.C. §7401-7671).

2. Coordinate with Illinois Environmental Protection Agency for scheduling and notification of burn activities.

3. Do not perform prescribed burns during ozone alerts or related air quality alerts issued by Illinois EPA.

4. Avoid burning during periods when ozone or particulate matter levels are near or above NAAQS standards (i.e. when alerts may be imminent).

Guidelines

1. Consider air resource objectives when planning, designing, and implementing projects, which may affect the air resource, consistent with other goals and objectives.

2. Minimize risks to public health and safety from prescribed fires through planning and managing prescribed fires, including smoke management plans.

4.2.8. MINERAL RESOURCES

Guidelines

1. Do not excavate or remove natural deposits, except for restoration, scientific, or other uses by special permission. (This includes excavation or removal of glacial erratics, fossils, bedrock, sand or gravel deposits, stream materials, or soils).

4.3. MANAGEMENT AREA 1 – PRAIRIE ECOSYSTEM RESTORATION

STANDARDS AND GUIDELINES

4.3.1. ECOLOGICAL SUSTAINABILITY

Ecosystem Restoration and Management

4.3.1.1. THREATENED, ENDANGERED, AND SENSITIVE SPECIES

4.3.1.1.1. General

Guidelines

1. Consider restoration or introduction of appropriate Federal Threatened and Endangered and Proposed Species following approved recovery plans.

4.3.1.1.2. Leafy Prairie Clover and Eastern Prairie White-Fringed Orchid

Standards

1. Plan project management activities including habitat monitoring, prescribed burning, mowing firebreaks, herbicide treatment, grazing, and trail use etc., to avoid or minimize adverse impacts to Leafy Prairie Clover during the growing season from April 30th to October 30th and Eastern Prairie White-fringed Orchid during the growing season April 1st to October 15th.

Guidelines

1. Evaluate all existing or restored dolomite prairie habitat for potential restoration or introduction of Leafy Prairie Clover.

2. Evaluate all existing or restored dolomite prairie, upland typic prairie, and wet typic prairie habitat for potential re-introduction of Eastern Prairie White-fringed Orchid.

3. Restore or introduce Leafy Prairie-Clover and Eastern Prairie White-Fringed Orchid into areas determined suitable.

4. When using herbicides in Leafy Prairie Clover or Eastern Prairie White-Fringed Orchid habitat, apply approved herbicides with special care using wipe-type applicators or other techniques to eliminate drift; survey area

and before herbicide application cover known plants of Leafy Prairie Clover and Eastern Prairie White-Fringed Orchid growing near application area; use no pre-emergent herbicides; all personnel applying herbicide must be trained in identification of Leafy Prairie Clover and Eastern Prairie White-Fringed Orchid.

5. Locate new trails at least 25 yards away from known Eastern Prairie White-Fringed Orchid or Leafy Prairie Clover plants, and close all trails located within ¼ mile of plants during their blooming season.

6. Prior to livestock grazing in occupied or potential Eastern Prairie White-Fringed Orchid, survey for presence of the plants, and locate livestock fences to keep livestock at least 1/8 mile away from occupied habitat of these plants.

4.3.1.1.3. Bald Eagle

Guidelines

1. Protect migrating bald eagles on Midewin from disturbance.

2. If bald eagles establish nesting or roosting sites on Midewin, protect and manage these sites in accordance with the recovery plan for this species.

4.3.1.2. SENSITIVE SPECIES

Standards

1. Prohibit harvest of sensitive species for commercial or personal uses.

Guidelines

1. Restrict management and recreational activities within 82 feet of known sensitive wetland bird nests during the breeding season.

2. Prepare a biological evaluation for project activities that may affect Regional Forester Sensitive Species. The need for and extent of field surveys to develop a biological evaluation should be considered in relation to the possible risks associated with project, the species involved, and the level of knowledge already on hand. The intensity and scope of inventories should be commensurate with the potential risk of a proposed project to sensitive species.

3. Develop conservation assessments for newly designated sensitive species within one year of addition to Regional Forester Sensitive Species list.

4. Any species of conservation concern that are discovered on Midewin or naturally re-colonizes, will be evaluated for proposed inclusion on the Regional Forester Sensitive Species list. Such evaluation will include:
    a) Global Conservation Status Rank; ranks of G1 (Critically Imperiled), G2 (Imperiled), and G3 (Vulnerable) merit automatic consideration for inclusion on the RFSS list for Midewin.
    b) Species' status as a State of Illinois Threatened, Endangered, or Watch List Species.
    c) Other species for which evidence suggests concerns about range-wide or regional persistence.

5. Implement habitat improvement projects to increase habitat capabilities and expand species distributions.

6. Identify research and information needs for sensitive plants and animals.

7. Identify and consider the conservation of representative rare plant communities (e.g., remnant communities that exist only on one or limited areas of the Prairie) during project planning.

8. Sensitive species lists should be reviewed periodically to consider new information to reflect the best available information to address concerns on the likelihood of persistence for these species.

9. Conduct plant surveys during the season when sensitive plant species are easily identified.

10. Review and update each sensitive species conservation assessment at least once every five years.

11. Exchange records and information with appropriate organizations and state and federal agencies on the status of sensitive species populations and habitats.

12. For all sensitive species:

    a) Coordinate with the Illinois Department of Natural Resources and the Illinois Endangered Species Protection Board on any activities that would affect the likelihood of persistence of these species.

    b) Avoid resource management, recreational and construction activities during growing and breeding seasons that will impact sensitive species. See Table 4.1.

4.3.1.3. STATE LISTED SPECIES

Guidelines

1. Protect, manage, and enhance species listed by the State of Illinois.

2. Evaluate all proposed projects for potential impact to state-listed species, if such species are known or likely habitat is known to be present within project area.

Table 4.1 – Sensitive Species Habitat Management Activity

Standards and Guidelines

HABITAT TYPE	ACTIVITY	LIMITATION	STANDARD OR GUIDELINE
Native Prairie Communities (Remnant and Restored) Includes Dolomite Prairie	Prescribed Burns	Treat no more than 1/3 of all habitat per year.	Standard
		Treat no more than ½ of any given remnant.	Guideline
		Minimize prescribed burning activities between March 15 and Nov 15.	Guideline
	Mowing	Minimize mowing activities between April 15 and Aug15.	Guideline
	Grazing	Allow grazing between March 1 and Nov 30.	Guideline
Short Stature Grassland	Prescribed Burns	Minimize prescribed burning activities between April 15 and Aug 15.	Guideline
	Mowing	Minimize mowing activities between April 15 and Aug 15.	Guideline
	Grazing	Allow grazing between March 1 and Nov 30.	Guideline
Medium Stature Grassland	Prescribed Burns	Minimize prescribed burning activities between April 15 and Aug 15.	Guideline
	Mowing	Minimize mowing activities between April 15 and Aug 15.	Guideline
	Grazing	Allow grazing between March 1 and Nov 30.	Guideline

HABITAT TYPE	ACTIVITY	LIMITATION	STANDARD OR GUIDELINE
Tall Stature Grassland	Prescribed Burns	Treat no more than 1/3 of habitat per year.	Standard
		Minimize prescribed burning activities between April 15 and Aug 15.	Guideline
	Mowing	Minimize mowing activities between April 15 and Aug 15.	Guideline
	Grazing	Allow grazing between March 1 and Nov 30.	Guideline
Native Forest/Woodland	Prescribed Burns	Minimize prescribed burns between April 30th and Oct 15.	Guideline
	Trail Location	Locate trails at least 25 yards from sensitive species habitat locations.	Standard
Wet Prairie/Sedge Meadow	Prescribed Burns	Minimize prescribed burns between April 15 and Nov 15.	Guideline
Riparian	General Management	Minimize activities in known sensitive species locations between April 15 and Oct 15.	Guideline

4.3.1.4. RESTORATION of SPECIES OF CONSERVATION CONCERN

Standards

1. Prior to attempting restoration of extirpated species of conservation concern, restoration plans for such species shall be developed in consultation with appropriate state and federal agencies. These species of concern include:
    a. Federal Threatened, Endangered, and Proposed Species.
    b. State of Illinois Threatened, Endangered, or Watch List Species.
    c. Species with Global Conservation Status Ranks of G1 (Critically Imperiled), G2 (Imperiled), or G3 (Vulnerable). If established successfully on Midewin, species with these rankings would receive automatic listing as Regional Forester Sensitive Species.

2. Restrict introduction of non-native wildlife such as pheasants, except for well-documented management purposes. Restoration plans for any introduced species shall be developed using guidelines below.

Guidelines

1. Develop and implement a decision protocol to select additional native species for restoration or introduction. This protocol should include consideration of the following criteria:

    a) Historical evidence or documentation of species' former presence on Midewin or adjacent lands with similar features.
    b) Midewin lies within the species' historic range.
    c) Midewin formerly supported suitable habitat for this species, is likely to do so in the future.
    d) Alone or when included with adjoining public lands, Midewin supports sufficient habitat for maintenance of a population.
    e) Restoration/introduction of this species will contribute to the likelihood of persistence of the species in the region without adverse impacts on other species of conservation concern at Midewin.
    f) Restoration/introduction of this species will contribute to the increased likelihood of persistence of other native species through specific interactions, including pollination, host plants for root parasites, food plants for native insects, and mycorrhizal associations.
    g) Restoration/introduction of this species will not have adverse impacts on existing species of conservation concern at Midewin, especially impacts that might lead to Federal listing or would compromise the species likelihood of persistence in the region.

2. Restore, introduce, or enhance populations of threatened, endangered, and sensitive species when the following are met:

    a) When an enhancement program is determined through research or monitoring programs to be an effective way of maintaining or restoring a population.
    b) Midewin meets or exceeds the minimum habitat requirements for supporting a population of the specific sensitive species.
    c) When natural colonization does not occur within 10 years of Plan implementation.
    d) When enhancement projects will not cause negative effects to source populations.

4.3.1.5. NATIVE VEGETATION REMNANTS

Guidelines

1. Native vegetation remnants present within other areas will be protected and managed to ensure long-term persistence. These remnants should be expanded and buffered by restored habitat to ensure persistence, but

these activities should avoid adverse impacts (for example, fragmentation or inundation) on surrounding habitats.

2. Restore all remnants to their likely original condition as best that can be determined, based on soils, landscape position, existing species composition, and other evidence. For example, some areas currently classified as “forests” might be restored to woodland or savanna.

3. Use native vegetation remnants as “nuclei” or foci for restoration of native vegetation, as these will serve as sources of seeds, insects, and soil microbes to enrich the surrounding restored habitats.

4. Restoration activities within existing native vegetation remnants may include prescribed burning; grazing; mowing; removal of ditches, berms, or other man-made structures; exotic species control; structural restoration of vegetation; hydrological restoration; and removal of woody encroachment by native woody plants.

5. Additional plant species should not be added (through seeding or planting) to native vegetation remnants until at least 8 years of monitoring has verified their absence (or a reasonable likelihood of their absence) following initiation of management. Any areas within a remnant that require replanting (such as removed railroad berms) should only be replanted with species present within a given remnant, and, where possible, using seed sources from that remnant. When the previous conditions are met, only introduce appropriate species for that habitat or plant community (see Appendix B - Desired Plant Species List.)

6. Exceptions to the previous statement should meet the following conditions:

    a) The plant species is required to rehabilitate the native vegetation to desired future condition based on soils, hydrology, and likely pre-1800 natural vegetation. For example, planting bur oaks in savanna areas that were cleared of trees when they were converted to agriculture.

    b) The remnant is potential habitat for a plant species of conservation concern (Federal-listed, RFSS, State-listed), and establishment of a population in this remnant is necessary for the species’ persistence at Midewin.

    c) The introduction is necessary because the species provides an essential link for the likelihood of persistence of another species (Federal-listed, RFSS, State-listed). Some examples would include: food plants for RFSS insect species; crucial, seasonal

nectar sources for pollinator(s) of a plant of conservation concern; and a host plant for a parasitic or hemi-parasitic plant of concern. All such introductions would be recorded and monitored.

7. Locate trails or other features that may be a source of disturbance so as to avoid or minimize impacts on remnants.

8. Remove fragmenting features so as to allow for eventual linkage between remnants.

4.3.1.6. HABITAT RESTORATION

4.3.1.6.1. Restoration for Grassland Bird Habitat

Standards

1. Maintain a minimum of 2,000 acres of prime habitat for grassland birds in any year.

Guidelines

1. Select and prioritize areas to be managed for grassland bird habitat based on:

    a) Potential to consolidate existing fragments or patches;

    b) Potential to enhance habitat for Regional Forester Sensitive Species;

    c) Structural and areal requirements (size of the area) for suites (guilds) of grassland birds.

2. Cool-season grasses may be used where necessary until methods for managing grassland bird habitat with native prairie grasses and forbs are known to be successful.

3. Restore and maintain at least 10,260 acres total as unfragmented habitat. Definition of unfragmented or connected habitat includes the following:

    a) Provide five large areas of connected open grasslands at the landscape scale from 500 to 3,000 acres in size. (See Map Figure 6 – Transportation and Trails Corridor for unfragmented areas)
    b) Open grasslands or restored prairie with less than 5% of the ground cover in woody vegetation.
    c) No roads or multiple-use trails within the open areas.
    d) No savanna or woodland patches within the open grassland or prairie area.
    e) No high use development.

4.3.1.6.2. Livestock Grazing

Standards

1. Grazing practices shall be used only to accomplish habitat management objectives. Length of grazing season, stocking levels, timing of grazing, type of livestock etc, shall be adjusted as needed to accomplish habitat objectives and avoid resource damage.

2. Livestock access to wetlands, streams, and riparian areas shall be managed to minimize negative impacts to natural resources.

Guidelines

1. Livestock grazing may be permitted under grazing permits renewable annually up to five years.

2. Fencing to manage livestock shall be appropriate for the type of livestock. Placement and design of fencing should consider other resource needs, including recreation trail access needs.

3. Generally restrict livestock grazing from native vegetation remnants or sensitive plant species habitat, except where required to meet specific habitat or restoration objectives for vegetation or sensitive species.

4. Develop new water sources or watering points as necessary to facilitate management and distribution of livestock to achieve habitat goals. Do not locate new wells in wetland areas or in groundwater management zones defined by the Army.

5. Livestock handling facilities shall be located where feasible and accessible, but not detrimental to riparian areas or native vegetation remnants.

6. Domestic bison may be considered as livestock and may be grazed only on an experimental basis on a portion of Midewin, under permitted authority following NEPA compliance and adequate fencing.

4.3.1.7. WILDLIFE

4.3.1.7.1. Wildlife Habitat Planning

Guidelines

1. Coordinate with the Illinois Department of Natural Resources (IDNR), and other state agencies, the U.S. Fish and Wildlife Service (USFWS), and other cooperators and partners during the planning of activities that may affect wildlife.

2. Coordinate wildlife habitat surveys, studies, plans and improvement projects with IDNR, USFWS, and other appropriate state, federal, local or partner agencies. Use agreements and other partnerships to cooperate with partners.

3. Provide the abundance and distribution of habitat necessary to maintain populations of the existing native and desired species. (Consult 36 C.F.R. §219.19 and 36 C.F.R. §219.27).

4. Identify habitat improvement projects to meet wildlife habitat and population objectives.

5. Consider the following factors to assess habitat improvement project opportunities and priorities: meet state wildlife population objectives; existing habitat is in poor condition compared to its potential; treatments with favorable or reasonable costs.

6. Design projects to maintain landscape connectivity or reduce fragmentation. Assure interdisciplinary involvement and consideration of grassland habitat in project planning and environmental analysis.

7. During the environmental analysis for projects proposing to build multiple-use trails, construct roads or otherwise significantly alter vegetative cover, conduct an analysis to determine whether connectivity exists among grassland blocks or tracts. Consider existing features such as old fencerows or hedgerows, roads, or other land features that divide or fragment the grasslands into smaller segments.

8. When population or habitat declines for a plant or animal species indicate that long-term persistence is at risk, evaluate for designation as a Regional Forester Sensitive Species by the Regional Forester.

9. Avoid construction and earth disturbing activities during the breeding season, if such activity may be detrimental to prairie animal species of concern.

4.3.1.7.2. Wildlife Management Game Species

Guidelines

1. Coordinate with Illinois DNR to manage the type, distribution, timing, and intensity of hunting, fishing, and trapping to achieve goals of ecosystem and species management and prevent environmental disturbance.

2. Game and non-game species may be collected, hunted, trapped, or harvested by permit only.

3. Permitted harvest of game wildlife may be suspended when it conflicts with the goals or activities of restoration projects and ecosystem management.

4. Avoid introduction of non-native species principally for game management or recreation alone, and where it may not enhance prairie ecosystem functions.

4.3.1.7.3. Heron and Raptor Nest Protection

Standards

1. Provide for the protection of raptor (hawk or owl) nesting habitat and heron rookeries.

2. Conduct project level inventories to identify heron rookeries and raptor nesting habitat using the most recent inventory protocols.

3. Protect active rookeries and raptor nesting habitat. Active nests will be protected with a no activity buffer of 900-foot width for tree nesting birds and 1,300 feet for ground nesting raptors. Prevent disturbance in this buffer area during the active nesting season (generally March 1 through August 15).

4.3.1.7.4. Edge Species Management

Guidelines

1. Provide habitat for birds listed as edge species by Partners in Flight, National Audubon Society, and other conservation groups, in restored savannas, woodlands, forest edges, shrubby prairies, and riparian habitats, and not in existing fencerows, overgrown hedgerows, shrublands, and successional woodlands that are fragmenting prairie and grassland habitats.

4.3.2. RECREATION AND INTERPRETATION

4.3.2.1. General Recreation

Guidelines

1. Coordinate timing of recreational development, maintenance and use to minimize negative impacts to sensitive species.

2. Pets accompanying visitors are restricted to areas designated for pets or otherwise restricted by the Prairie Supervisor.

4.3.2.2. Trails

Guidelines

1. Utilize the following trail layout criteria:
    a) Locate interim multiple use trails (bicycle and/or horse use) on existing transportation infrastructure.

    b) Locate permanent trails on existing transportation infrastructure to prevent environmental impact, where feasible.

    c) Locate trails to prevent impact on Threatened, Endangered or Sensitive species.

    d) Within identified “unfragmented zones,” limit trail use to “hiking-only,” other trail uses (bicycling and/or equestrian use) must be located outside or on the perimeter of the “unfragmented zones.”

4.3.3. LANDS AND SPECIAL USES

4.3.3.1. Agriculture Use

Standards

1. Agriculture crop production may be permitted under special use permits renewable annually up to five years.

2. Herbicides, pesticides or fertilizers for agricultural use, must be approved in advance by the Prairie Supervisor, and must be applied in a manner that avoids adverse effects on aquatic and other prairie resources.

Guidelines

1. On lands used for continued crop production, utilize agriculture practices that do not use or use only minimal amounts of herbicides, pesticides or fertilizers.

2. Agriculture practices and activities should be monitored and adjustments made to operations as needed, to minimize negative environmental effects.

3. Use conservation measures on all cropland under special use permits, to minimize erosion or loss of soil and water quality. Utilize no-till cropping systems for fields under special use permits for crop production. Consult with USDA Natural Resource Conservation Service for applicable soil conservation measures and practices.

4. Restrict crop production from the 100-year floodplain or within 100 feet of fish-bearing streams.

4.4. MANAGEMENT AREA 2- ADMINISTRATIVE SITES AND DEVELOPED RECREATION SITES

STANDARDS AND GUIDELINES

4.4.1. RECREATION AND INTERPRETATION

Standards

1. Prohibit hunting in developed recreation areas.

2. Limit recreational motorized vehicle use at Midewin to public access routes, parking lots, permitted public transportation, or authorized guided tours.

Guidelines

1. Locate short interpretive trails near main access points.

2. Pets accompanying visitors must be kept on a leash.

4.4.2. FACILITIES AND TRANSPORTATION

4.4.2.1. Facility Construction and Maintenance

Standards

1. All buildings remodeled, newly constructed, or leased for public or administrative use must be constructed in accordance with an approved site development plan, Built Environment Image Guide and Midewin architectural themes in order to provide safe, functional, aesthetically pleasing, energy efficient, and cost-effective facilities.

2. Access for persons with disabilities is required for new administrative and visitor facilities.

3. Ensure that potable water provided at any public or administrative facility meets state water quality standards for public health and safety.

Guidelines

1. Survey all existing facilities for accessibility. Implement improvements to provide barrier-free, accessible facilities appropriate to the site development and ROS level, as funding and opportunities allow.

4.4.3. LANDS AND SPECIAL USES

Guidelines

1. After sites are developed, prohibit livestock grazing in developed recreation sites.